MITSUBISHI MOTOR SALES OF AMERICA, Inc.

TECHNICAL SERVICE BULLETIN

SUBJECT:

BRAKE ROTOR SERVICING

NO.	TSB-92-35-008
DATE	December, 1992
MODEL	See Below

PURPOSE

This Technical Service Bulletin describes brake rotor servicing procedures and provides warranty labor operation time allowances when an on-the-car brake lathe is used to correct variations in brake rotor thickness and run-out conditions.

VEHICLES AFFECTED

All with front or rear disc brakes

DESCRIPTION

For optimum braking performance, all brake rotors must be carefully serviced to meet recommended thickness and run-out tolerances. It is important to check rotor run-out and thickness prior to servicing the rotors.

When turning rotors to correct uneven thickness or excessive run-out, the best results will be obtained by using an on-the-car brake lathe such as the Pro-Cut model VBG-610. Regardless of the brand or type of brake lathe used, follow the lathe manufacturer's instructions exactly.

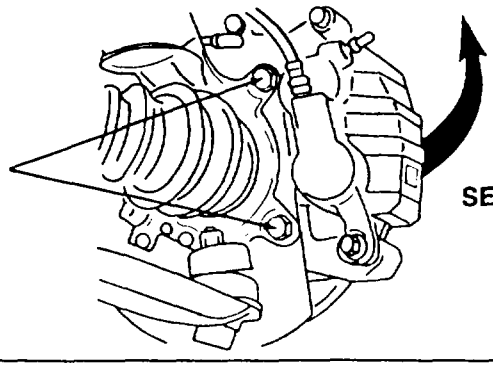
The remainder of this bulletin describes brake rotor servicing procedures and provides warranty information for brake rotor turning with an on-the-car brake lathe.

BRAKE ROTOR SERVICING PROCEDURES *

* These procedures apply to all vehicles with front or rear disc brakes. Refer to Group 35 of the specific vehicle's service manual for correct brake rotor thicknesses and run-out tolerances.

BRAKE ROTOR RUN-OUT

1. Remove the brake caliper support bolts and raise the caliper upward, away from the rotor. Secure the caliper out of the way with a wire hook.



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FILE UNDER: Group 35 Service Brakes in the Dealer Service Information Binder (1101)

CIRCULATE TO:
- ☐ GENERAL MANAGER
- ☐ PARTS MANAGER
- ☑ TECHNICIAN
- ☐ SERVICE ADVISOR
- ☑ SERVICE MANAGER
- ☐ WARRANTY PROCESSOR
- ☐ SALES MANAGER

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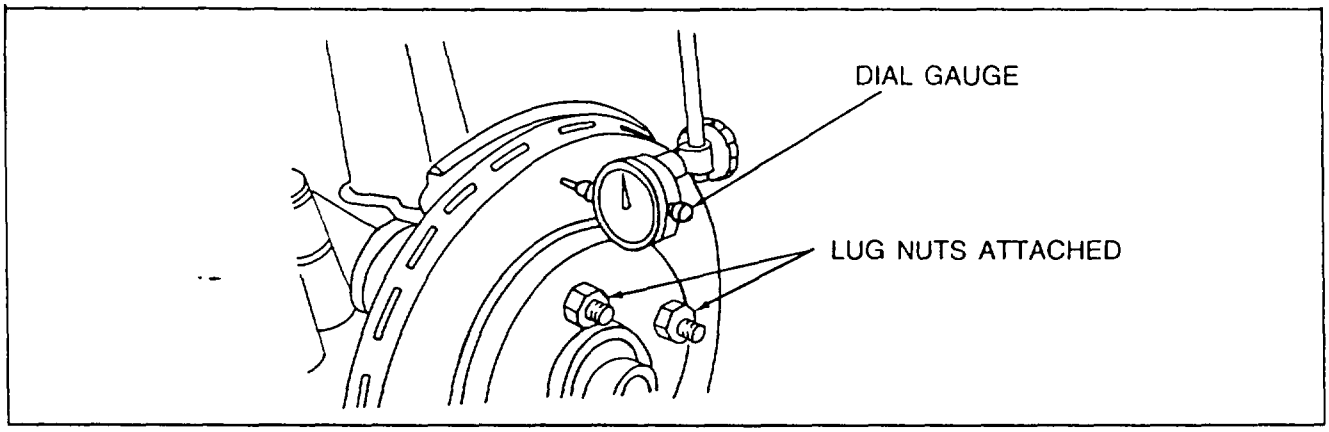
2. Inspect the brake rotor surface for grooves, cracks, and rust. Clean the rotor of all removable debris before proceeding.

3. Position a dial gauge approximately 5mm (0.2 in.) from the outer edge of the rotor, zero the gauge, and measure the run-out. Refer to the appropriate service manual for allowable run-out specifications.

   NOTE: Use the wheel lug nuts to secure the rotor to the wheel hub.



4. If the rotor run-out equals or exceeds allowable specifications, change the phase of the rotor and hub.

   To change the phase of the rotor and hub, remove the rotor, rotate it one or two studs from its initial position, and re-install it on the hub. Further instructions on changing the phase can be found in Group 35 of the appropriate service manual.

5. Re-check the rotor run-out. If it is still more than the allowable limit, resurface the rotor using an on-the-car brake lathe.

   NOTE: If an on-the-car brake lathe is not available, use an off-the-car lathe. Replace the brake rotor ONLY if neither type of brake lathe is available or if resurfacing would make the rotor thinner than minimum thickness specifications.

   Regardless of the brand or type of brake lathe used, follow the lathe manufacturer's instructions exactly.

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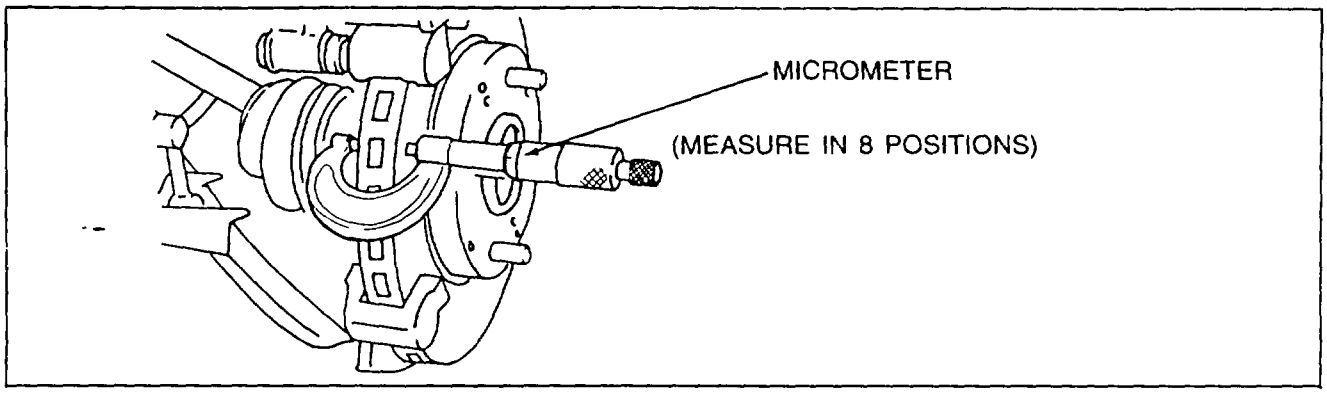
BRAKE ROTOR THICKNESS VARIATIONS

1. With the brake caliper removed and secured out of the way with a wire hook, measure the thickness of the brake rotor at 8 different positions using a micrometer. Each measuring position should be 45 degrees apart and 10mm (0.39 in.) from the outer edge of the rotor. Refer to the appropriate service manual for the standard value thickness and the limit.



NOTE: The thickness variation between any two measurement positions must not exceed 0.015mm (0.0006 in.).

2. If the thickness variation is exceeded, resurface the rotor using an on-the-car brake lathe.

NOTE: If an on-the-car brake lathe is not available, use an off-the-car lathe. Replace the brake rotor **ONLY** if neither type of brake lathe is available or if resurfacing would make the rotor thinner than minimum thickness specifications.

Regardless of the brand or type of brake lathe used, follow the lathe manufacturer's instructions exactly.

WARRANTY INFORMATION

The 8-digit operation number shown in the chart below **DOES NOT** apply when an off-the-car brake lathe is used or when rear disc brake rotors are machined. The operation number applies **ONLY** when an on-the-car brake lathe is used to machine **FRONT** brake rotors.

LABOR OPERATION TIME SCHEDULES FOR ON-THE-CAR BRAKE ROTOR MACHINING OF FRONT BRAKES

OPERATION																							
CODE	DESCRIPTION																						
352211 22	DISC (ROTOR) FRONT BRAKE: ON VEHICLE GRINDING (One side)	D1	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	[Additional time allowance] G3 With free-wheeling hub																			0.2			0.2
	[Additional operation] Both side grinding		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

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When machining rear brake rotors **on-the-car**, use operation number 35221100. Time allowance for on-the-car machining of two rear brake rotors is the same as for front brake rotors: 2.4 hrs.

For off-the-car machining, use Position Code #35221100. Time allowance for off-the-car machining of two brake rotors (front or rear) is 0.5 hrs.

Warranty information concerning on-the-car brake rotor machining for front brakes can be found on page 35-2 of the 1993 Labor Operation Time Schedule (LOTS) manual.

Refer to page 35-2 of the 1993 Labor Operation Time. Schedule (LOTS) manual for further warranty information.